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PLYMPTON ST. MARY  
RURAL DISTRICT COUNCIL.

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ANNUAL REPORT

FOR

1895

OF THE

Medical Officer of Health,

S. NOY SCOTT, D.P.H., Lond., L.R.C.P., Lond., M.R.C.S., Eng.

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Plymouth:

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TO THE  
PLYMPTON ST. MARY  
**Rural District Council.**

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ANNUAL REPORT  
OF THE MEDICAL OFFICER OF HEALTH  
**For the Year 1895.**

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GENTLEMEN,

Herewith I have the honour of submitting to you my Annual Report of the Public Health of the Plympton St. Mary Rural District for the year 1895.

The arrangement of the Report is based on the suggestions issued by the Local Government Board, and will therefore be as follows :—

1. A brief description of the general physical characters of the district.
2. The vital statistics of the year.
3. The diseases prevalent during the year

4. A description of the sanitary conditions of particular parishes and villages, with notes on the work done during the year, and on what is wanted in the future. With this are incorporated the reports received from the Sanitary Inspectors, Messrs. Shier and Horton.

I am, Gentlemen,

Yours obediently,

S. NOY SCOTT,

*Medical Officer of Health.*

ANNUAL REPORT  
OF THE MEDICAL OFFICER OF HEALTH,  
FOR THE YEAR 1895.

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HE area of the Plympton St. Mary Union is 74,320 acres: but as Compton Gifford and Ivybridge have each an independent Sanitary Authority, the area of the district under the Plympton St. Mary Rural District Council for Sanitary Purposes is 73,490 acres,

The district is situated at the extreme west of the South Hams, and is bounded on the North by Dartmoor and the River Tavy; on the South by the English Channel, and the towns of Plymouth and Devonport; on the West by Plymouth Sound, Plymouth, Devonport, and the River Tamar; and on the East by the hilly district of the South Hams.

From the hills lying to the East and North there are a series of undulations, running mostly towards the sea on the South and West, and along the valleys thus formed are the Rivers Erme, Yealm, and Plym, with their tributaries.

In the north part the land is chiefly moorland, and contains valuable china clay works. The remainder of the district is mainly agricultural, and, in most places, in a good state of cultivation. The surface is well wooded.

The GEOLOGY of the district varies much in the different localities ; in the north there are large deposits of granite, which in places is disintegrated and forms the china clay beds ; whilst in the south-west are very extensive and thick beds of limestone. Slate is found in large quantities on the banks of the Plym, in the parishes of Egg Buckland and Plympton St. Mary, whilst scattered throughout the district are shillet and dunstone.

The CLIMATE is mild and humid, and the rainfall abundant, but no official meteorological records are kept.

The WATER SUPPLY. The district contains abundant and satisfactory water in the shape of streams and springs, but these are very unequally distributed and therefore many of the villages —especially in the southern part of the district—are so far from them as to be almost entirely dependent upon shallow wells and stored rain water.

The water is derived from the following sources :—

- (1) Upland surface water, from Dartmoor, and similar places, which, collecting in small streams, yields a plentiful supply of good and pure water.
- (2) Springs and Deep Wells :—These are found in various localities, and yield a water whose quality depends entirely upon the particular soil in which the well is. In the limestone district the water is sometimes very hard from dissolved carbonate and sulphate of lime, and except for the hardness the water is good, and generally speaking, very pure, *i.e.*, free from organic pollution.
- (3) Shallow Wells :—These are scattered throughout the district, and they largely consist of mere surface water. These wells afford a water which may be good or very bad, according to their depth,

position, (proximity to cess-pits, &c.), and liability to surface pollution. A Sanitary Authority should never be content with a water supply which is derived from shallow wells.

#### SEWAGE AND ITS DISPOSAL:—

Several of the larger villages are drained by a system of sewers from which the sewage is sent into the sea, or water courses, or is carried on to the land, and so disposed of by a method of irrigation.

In many of the villages there are numbers of cases in which the sewage from one or more houses is collected in cesspits. These, not only require periodical cleansing and constant attention, but every now and again they produce serious nuisances, by suddenly overflowing.

By far the majority of cottages and isolated houses are provided with closets over small cesspits, which are often mere depressions in the ground. In these cesspits, the filth is allowed to accumulate for a time, varying from one to twelve months, and then has to be removed. It is a disgusting and dangerous method, and the Sanitary Inspectors are constantly endeavouring to replace it by the more suitable and cleanly earth closet system. The cottagers, however, object most strongly to any alteration being made in their time-honoured freedom to do as they like, and this, together with the little but regular trouble, which is necessary in the use of earth closets, almost prevents their adoption. But, I cannot let this opportunity pass without saying that earth closets are the most suitable in every way for small houses with attached gardens.

The year has, I am glad to say, been active in the promotion of means for improving the drainage of the district, and several really good schemes are in hand, notes of which will be found under Sec. 4 of the report.

## VITAL STATISTICS.

For Registration purposes, the district is divided into two sub-districts,—the North or Plympton containing 11 parishes, and the South or Yealmpton containing 8 parishes.

The population of the whole district at the 1891 census was 21,759, and is estimated at the middle of 1895 to be 22,443, and is distributed in the various parishes as follows :—

NAME OF PARISH.	Area in acres.	Population 1891 census.	Population 1895 estimate
North Sub-district :—			
Bickleigh	2980	302	280
Cornwood	10680	1258	1309
Egg Buckland	3204	1833	2219
Harford	3680	172	167
Laira Green	596	481	669
Pennycross or Weston Peverell	900	811	987
Plympton St. Mary (including ecclesiastical parish of Sparkwell)	11200	3471	3451
Plympton Maurice	170	1139	1136
St. Budeaux	2500	2243	2395
Shaugh Prior	7170	714	722
Tamerton Foliot	3910	1118	1103
Total	46990	13542	14438
South Sub-district :—			
Brixton	3060	622	590
Ermington (excluding Urban District of Ivybridge)	4920	900	890
Holbeton	4800	949	870
Newton Ferrers	3090	710	713
Plymstock (including ecclesiastical parish of Hooe)	2860	3162	3155
Revelstoke	1460	471	427
Wembury	3070	524	510
Yealmpton	3240	879	850
Total South	26500	8217	8005
Total North	46990	13542	14438
Total, Whole District	73490	21759	22443

The estimated population for 1895 is a theoretical one, and therefore not free from sources of error, as the Medical Officer of Health has no opportunity of ascertaining how many people migrate into or emigrate from the district. The difference between the numbers of births and deaths registered in the district, together with the number of additional houses erected and occupied, of course afford valuable indications, but for practical purposes and especially for calculating the Birth and Death rates the M.O.H. relies on the estimate obtained from the last two recorded censuses.

The number of houses in the whole district inhabited at the time of the 1891 census was 4333 ; since then 116 were built in 1892, 88 in 1893, 75 in 1894, and 143 in 1895. Leaving out of the question the indeterminable number of houses taken down or become uninhabitable, I estimate the present number of houses in the district to be 4755 which gives an average of 4.7 persons per house.

Building has been almost confined to the districts of St. Budeaux and Weston Peverell, which are developing rapidly.

## BIRTHS AND BIRTH RATES.

The following births were registered in 1895 :—

	Males.	Females.	Total.	1894.
North Sub District	220	205	425	364
South	110	88	198	190
Whole District	330	293	623	554

This gives a Birth rate for the North of 29.43 per 1000, as compared with 25.52 in 1894 ; 27.62 in 1893 ; and 25.84 in 1892.

For the South the rate was 24.73 per 1000, as compared with 23.63 in 1894 ; 27.43 in 1893 ; 26.93 in 1892.

For the whole district the rate was 27.75, as compared with 24.84 in 1894 ; 27.55 in 1893 ; and 26.77 in 1892. The average for the last 7 years is 27.07.

## MARRIAGE RATE.

During the year 123 marriages were registered—This is 22 less than last year.

The marriage rate for this year (or persons married per 1000 persons living) for the District was 10.96 as compared with 13 in 1894, 12.01 in 1893, and 12.1 in 1892,

## DEATH AND DEATH RATES.

The deaths registered in 1895 were as follows :—

	Males.	Females.	Total.	Total in 1894.
North sub-district	133	113	246	233
South	68	64	132	127
Whole district	201	177	378	360

*Recorded death rate per 1000 :—*

	1895	1894	1893	1892
North sub-district	17.03	16.34	17.84	17.69
South	16.48	15.79	17.34	16.27
Whole district	16.84	16.14	17.65	17.16

The average rate for the preceding five years was 17.35 so that the present year's rate is slightly below the average.

## CORRECTED DEATH RATES.

The deaths registered in the North sub-district include 29, which occurred in the following institutions :—

Plympton St. Mary Union Workhouse	...	14
Plympton House Asylum	...	3
St. Joseph's Home	...	12
		29

Of these 29, there were 12 deaths of persons not belonging to the district, and one death was recorded in Cornwood of a non-resident.

The deaths registered in the South sub-district include 7 of non-residents: there being 1 in Holbeton, 1 in Wembury, 1 in Yealmpton, 2 in Revelstoke, and 2 in Plymstock.

To find the corrected death rates of a district, the deaths of people dying within, but not belonging to, the district must first be deducted. In the North sub-district there were 13 such, in the South sub-district, 7, and in the whole district, 20. After deducting these from the respective gross totals, the corrected death rates are as follows:—

	1895	1894	1893	1892
North sub-district	16.13	14.93	16.61	17.18
South sub-district	15.61	15.79	17.34	16.27
Whole District	15.95	15.24	16.88	16.80

The corrected death rates for the respective parishes (excluding public institutions) are as follows:—

Cornwood	...	9.1	Bickleigh	...	14.2
Egg Buckland	...	9.4	Tamerton Folliott	...	14.5
Brixton	...	10.1	Plympton S. Mary	...	15.6
Weston Peverell	...	11.1	Ermington	...	15.7
Harford	...	11.9	Plymstock	...	16.1
Holbeton	...	12.6	Yealmpton	...	16.4
Plympton S. Maurice	...	13.2	Revelstoke	...	18.7
Laira Green	...	13.4	Newton Ferrers	...	19.6
Wembury	...	13.7	St. Budeaux	...	25.8
Shaugh Prior	...	13.8			

The deaths were distributed throughout the year as follows :—

	North Sub-District.			South Sub-District.			Whole District.		
	under 5	Over 5	Total.	Under 5	Over 5	Total	Under 5	Over 5	Totals
1st quarter	22	62	84	8	35	43	30	97	127
2nd quarter	12	38	50	7	29	36	19	67	86
3rd quarter	9	38	47	5	20	25	14	58	72
4th quarter	20	45	65	11	17	28	31	62	93
Whole year	63	183	246	31	101	132	94	284	378

#### Classification of causes of Death :—

		1895	1894	1893
Diseases of Nervous System	...	41	28	49
,,    Heart	...	47	34	23
,,    Respiratory System	...	102	85	80
		Phthisis 32	24	30
,,    Digestive System	...	25	24	19
,,    Urinary System	...	4	11	11
Zymotic Diseases	...	29	31	46
Cancer	...	18	17	17
Old Age	...	49	69	102
Injuries and Suicide	...	16	12	11
All other causes	...	47	49	31
	Total	378	360	389

The deaths from Zymotic Diseases were :—

	North Sub-District.	South Sub-District.	Total	1895	1894.	1893.
Whooping Cough	...	3	0	3	19	5
Enteric (Typhoid) Fever	5	0	5	1	1	
Small Pox	...	0	0	0	0	0
Diphtheria	...	1	2	3	3	2

	North Sub-District.	South Sub-District.	Total	1895	1894	1893
Diarrhoea	...	6	1	7	7	17
Measles	...	1	7	8	0	5
Scarlet Fever	...	1	1	2	1	13
Other Zymotic Diseases	1	0	1	0	0	3
Totals	...	18	11	29	31	46

This gives a Zymotic Death rate of 1.29 per 1000, as compared with 1.39 for 1894.

1895	1894	1893	1892	1891
1.29	1.39	2.08	2.7	2.3

The average rate for the Country generally is 2.6 so that 1895 is much below the average.

Deaths from all causes at various age periods:—

	1895.			1894	1893
	North sub-district	South sub-district.	Whole district.		
Under 1 year ...	42	18	60	64	66
1 year & under 5 years	21	13	34	34	37
5 do. 15 do.	5	8	13	15	18
15 do. 25 do.	9	6	15	15	7
25 do. 65 do.	76	33	109	99	105
65 do. upwards ...	93	54	147	133	156
Totals ...	246	132	378	360	389

As is usual in rural districts the greater number of deaths took place under one year and over 65; of the latter there were:—

		1894.
59 between 70 and 80	..	68
45 " 80 " 90	...	37
10 over 90 ...	...	7

There were two deaths at 97 and 97 and 11 months.

**Infant Mortality;** or deaths of infants under one year.— This is estimated as a ratio per 1,000 births registered during the year; and, as these numbered 623, the infant mortality was 96.3 per 1000.

1895.	1894.	1893.	1892.	Average for Country generally.
96.3	115.5	154	105	150

## TABLE A.—Deaths during the year 1895.

Mortality from all causes at subjoined ages

Mortality from subjoined causes, distinguishing deaths under five years of age

LOCALITIES adopted for the purpose of these Statistics; Public institutions being shown as separate localities.	At all ages	FEVERS		Diseases		TOTAL		
		Typhus	Enteric or Typhoid	Contiguous	Relaxing	Phthisis	Heart Diseases	Pneumonia and Bronchitis
North or Plympton	217	42	19	5	8	68	75	Under 5 5 upwards
Plympton House.	3							Under 5 5 upwards
St. Joseph's Home.	12							Under 5 5 upwards
Union Workhouse.	14	2		1	3	8		Under 5 5 upwards
Total, North ...	246	42	21	5	9	76	93	Under 5 5 upwards
South or Yealmpton	132	18	13	8	6	33	54	Under 5 5 upwards
<b>TOTALS.....</b>	<b>378</b>	<b>60</b>	<b>34</b>	<b>13</b>	<b>15</b>	<b>109</b>	<b>147</b>	<b>Under 5 5 upwards</b>
Deaths occurring within the district among persons not belonging thereto.	20			1	2	10	7	Under 5 5 upwards
								2 3 2 3 8 7 20

The subjoined numbers have also to be taken into account in judging of the above records of mortality.

TABLE B.

Shewing the number of deaths from the principal Zymotic Diseases in the District from 1883 up to and including 1895.

Disease.	Average for 1883-1890.	1891.	1892.	1893.	1894.	1895.	Annual Rate per 1000 1895.
Small Pox	...	0	0	0	0	0	0
Measles	5.2	16	5	5	0	8	35
Scarlet Fever	4.7	6	8	13	1	2	09
Diphtheria	2.6	0	3	0	3	3	13+
Whooping Cough	8.1	13	2	5	19	3	13+
Enteric or Typhoid Fever	4.5	7	4	1	1	5	22+
Diarrhoea	7.4	9	11	17	7	7	31+
Other Zymotic Diseases, <i>e.g.:</i> Erysipelas, Croup, and Puerperal Fever ...	Not recorded	Not recorded.	Not recorded.	5	0	1	04+
Total	32.5	50	33	46	31	29	129

NOTIFICATION—SMALL POX HOSPITAL—DETAILS  
OF DISEASES.

I am glad to be able to record that during the year the District Council has adopted the Notification of Infectious Diseases Act, which is to come into force on January 1st, 1896. I am also glad to say that there is a prospect of an arrangement being made with a neighbouring authority for the erection of a small-pox hospital. At one time cases of small pox occurring within the Union were, by arrangement with the Port Sanitary Authority of Plymouth sent to the Hospital Ship "Maud," but Plymouth in 1894 refused to continue to allow this. It may seem to some that a small pox hospital is almost an unnecessary expense, seeing that it is to be used for a single disease of which no case occurred within the district during 1895, and only one in 1894. But small pox is so often introduced into a district such as ours, by tramps, that it is of the utmost importance that means should always be ready for prompt and complete isolation ; and it is such a dreadfully infectious disease that an isolation hospital, in the long run, proves not only a necessity but a real economy ; and there is such a lamentably growing neglect of primary vaccination, and an almost total absence of re-vaccination, that the fear of a small pox epidemic is not an altogether unfounded one, as has been unfortunately proved so often in the north of England, where vaccination is much more neglected than elsewhere.

DISEASES IN THE DISTRICT DURING 1895.

**Measles.**—The notable feature of the year has been the epidemic of Measles which occurred in Yealmpton, Brixton, and Plymstock. Beginning in the first of these villages during May it gradually spread to the last where it was present (in Turnchapel and Hooe) during November and December. Although the type of the disease generally was mild yet seven deaths were caused by it—there being 3 in Yealmpton and 4 in

Turnchapel. So soon as the disease declared itself epidemic I ordered the Public Elementary Schools to be closed, but measles is a disease which is so infectious in its early and generally unrecognizable stages (when the symptoms resemble those of an ordinary cold) that it is always very difficult to prevent its attacking susceptible children who, although prevented attending school are yet allowed to congregate together for play. Again there is unfortunately a very strongly rooted opinion amongst parents that "the child has got to have measles and what's the good of trying to stop it." One fatal case occurred in St. Budeaux.

**Enteric Fever or Typhoid.**—I am sorry to have to record nine cases of this disease. They were distributed as follows :—4 in Laira Green ; 2 in Turnchapel ; 2 in Tamerton ; and 1 in St. Budeaux. Of the 9 cases, 5 were fatal, viz : 2 in Laira Green, 2 in Tamerton, and 1 in St. Budeaux.

In none of the cases could I find definite proof of cause, but I so strongly suspected the Laira Green cases to be caused by an impure water that I condemned the well.

**Scarlet Fever.**—8 cases were notified: of these, 2 were fatal, 1 in Newton Ferrers during January, and the other in Weston Peverell during February.

**Diphtheria.**—3 cases were notified and all were fatal ; there being 1 in Brixton, 1 in Ermington, and 1 in Plympton St. Mary.

**Whooping Cough.**—Three cases causing death came to my knowledge, although, no doubt, there were many non-fatal cases.

**Diarrhoea.**—6 cases resulted in deaths, of which there were : 2 in Plympton St. Mary, and one in each of the following parishes :—Plympton St. Maurice, Laira Green, St. Budeaux, and Weston Peverell.

**Puerperal Fever.**—The 1 death from this disease took place in Plympton St. Mary Parish.

**Small Pox.**—No case occurred during the year.

**Influenza.**—9 deaths were due to this disease: 4 in March, 3 in April, 1 in May, and 1 in November.

**Phthisis.**—This disease caused 32 deaths, this being 8 in excess of last year. They were distributed as follows:—

During 1st quarter of the year	...	6	
"    2nd	"	"    ...	12
"    3rd	"	"    ...	9
"    4th	"	"    ...	5

And of these, there were 8 in Plymstock, 3 in Egg Buckland, 3 in Laira Green, 2 each in Wembury, Yealmpton, Bickleigh, Plympton St. Mary, Plympton St. Maurice, St. Budeaux, Tamerton, St. Joseph's House, and 1 each in Brixton and Plympton House.

The recorded Phthisis Death Rate is 1.42, but as 2 of the deaths were of non-residents, the corrected death rate is 1.34.

The rate for 1894 was 1.056, and for 1893, 1.3.

**Injuries and Suicide.**—From these causes 16 deaths were registered, but 8 were of people *not belonging* to the district, 6 of which were due to drowning off the coast of the South Sub-District, 1 off Holbeton, 2 off Plymstock, 2 off Revelstoke, and 1 off Wembury. The other two were due to accidents in Yealmpton and Cornwood.

#### NOTES ON THE SANITARY CONDITIONS OF THE DIFFERENT PARISHES.

**Brixton.**—During the year the water supply of Torre has been much improved, and it is now in a satisfactory condition.

The village of Brixton remains with the same water supply as before, viz., only one public well—a shallow one—from which the water is drawn by two pumps. I consider the supply an unsatisfactory one, and I cannot but very much regret that the Parish Council and parish meeting have, during the year, rejected two schemes which have been laid before them, either of which would have solved the question as to how to supply Brixton village with water. To the first scheme, that of a supply from an artesian well, on Mr. Collins-Splatt's estate, the only objection which could be, and was raised, was a financial one; but, I do not consider that should have been sufficient to have caused the rejection of the scheme, seeing it was a good one, and that the initial outlay and the annual working costs would have been covered by a very small rate. In the second scheme, the water was to be obtained from an existing well, close to the Plympton Road, and in Mr. Collins-Splatt's land. The well was examined by an engineer, who reported that it could, by deepening and transverse boring, be made to yield a "reliable supply of water," sufficient to supply "upwards of 15 gallons per head per day," to the existing population. Unfortunately this second scheme has been also rejected by the Parish, but I think, it is worthy of being re-considered, and I recommend the District Council to make further inquiry into it, as, I think, unless some better scheme can be propounded, it is the one that will ultimately have to be adopted.

The sewers are unsatisfactory and insufficiently flushed; but it is useless to think of providing better sewers, until a larger supply of water has been obtained.

During the year the closet accommodation at the schools has been much improved.

**Ermington.**—The public water supply of this village is taken from a well very near the churchyard, which is still being used as a burying-ground. The Parish Council requested an examination of the well and an analysis of the water, and in November I reported on the matter. The well is a good one, well

formed and protected from surface pollution, and yields plenty of water. The water was analysed and found to be "of fair quality, but not altogether a desirable one for domestic use, as there is good ground for suspicion of a water obtained from a source so near a graveyard."

**Holbeton.**--There has been a much better distribution of the water carried out during the year, and some of the householders have taken water into their houses. The source of the water is about to be protected.

**Wembury, Knighton.**--This village obtains its water from two supplies: the one, a well situated very near a farm-yard, and the other a running stream. Both sources yield a plentiful supply of water and I have not received any complaints as to its quality during the past year.

**Newton Ferrers.**--This village is in the same condition as last year, viz:—"imperatively in want of a better water supply and improved sewers". It would be foolish to do anything to the sewers until a supply of water for flushing purposes has been obtained. During the year the water of the best well in the village was temporarily contaminated from a source which defied detection, but the mere fact of the proved contamination accentuates very strongly the necessity for finding a better supply of water. A great deal of time and trouble has been spent in endeavouring to find such a supply and on account of the conflicting views held by those concerned, as to whether a sufficient supply of water could be obtained in Newton Ferrers, and at such a height as to be properly distributable, I held a conference between the District and Parish Councillors of Newton Ferrers and Revelstoke and the Sanitary Inspector to determine what steps should be taken. Several selected and suggested sources of water were visited, and the ultimate result of the conference is that Mr. H. Worth, C.E., has been engaged to survey the district, and instructed to report on the best means of supplying the water.

Whilst exceedingly glad that the matter has progressed so far, I am yet compelled to impress on the Council the real necessity there is for making all possible speed in providing this village with good drinking water.

**Revelstoke.**—This village is at present supplied from one well which yields a fairly good supply of water, but its position is such as to prevent the water being distributed as it ought to be. There is a good source of water obtainable at a level high above the village, and which could therefore be easily distributed. I have already reported to the Council on this matter, and Mr. H. Worth, C.E., has been engaged to survey the district and report thereon. I am very glad this step has been taken, and I hope a good scheme will soon be prepared and presented to the Council.

**Plymstock.**—During the year a great deal of attention has been given to the question of providing the much desired and very necessary better water supply for this parish. In my last year's report I stated there were three plans open for investigation—one to seek for water in the parish, another to obtain water from Plymouth by bringing it across the Laira Bridge, and another to obtain water from Plympton.

The terms on which Plymouth will supply water are as follows :

1. The supply in all things to be subject to the liabilities of the Corporation, under and to the provisions of the Plymouth Water Acts.
2. The water to be measured by meter, to be supplied by and at the cost of the Plymouth Corporation, the Plympton Authority paying an annual rent therefore, calculated at  $12\frac{1}{2}$  per cent. on the cost of providing and fixing the meter.

3. The water to be supplied in bulk at the price of 4d. per 1000 gallons. The minimum quantity to be supplied each quarter to be agreed, such quantity to be spread as evenly as possible over each day during the quarter.
4. If owing to frost, accident, or other unavoidable cause, the supply be interrupted, the Corporation be at liberty to make up the quantity at any subsequent period of the year, so that the full minimum quantity per quarter shall be delivered.
5. The agreement to be for 10 years certain.
6. The Plympton Authority to lay pipes across the Laira Bridge, and to make the necessary arrangements with Lord Morley and other necessary parties in connection therewith, the Plymouth Corporation laying the mains up to the Bridge.

The Parish Council brought the matter again before the District Council, and the result was that Mr. Francis, C.E., of Devonport, was engaged to report on the question. After surveying the parish and visiting the various places indicated by the Parish Council, as probable sources of water, he reported that in his opinion there was no good probability of finding water within the Parish to provide sufficient for the inhabitants, although he considered that the present supplies at Turnchapel and Hooe might be so increased as to yield sufficient for those villages. At Turnchapel it is suggested that a large storage reservoir should replace the present small one and at Hooe that the water at present running to waste into Hooe Lake should be stored at or near its source in the adjoining hill and thence distributed throughout the village. During the past year an improvement has been made in piping the water into Hooe Village.

For Elburton, Plymstock, Oreston, and Pomphlett, Mr. Francis suggested that the best source was Plympton, and he prepared a detailed estimate for the necessary works. I should say that Mr. Francis, after special investigation, reported that Plymouth could not send water to Plymstock with sufficient pressure to warrant his further considering it as a source of supply.

The cost of the full scheme for bringing water from Plympton to Elburton, Plymstock, Oreston, Pomphlett, and Billacombe was given as £5,120, of which it is suggested that £600 should be borne by Plympton, that being the amount required to pipe the water to the boundary line of that parish.

The £5,120 is apportioned as follows :—

4 inch supply main from Longbrooke Street, Plympton,					
to Plymstock Reservoir	...	...	...	...	£1,438
Reservoir and Works connected therewith, including					
land	..	...	...	...	£1,558
Distribution pipes of various sizes at Plymstock, Billicombe,					
Elburton, Pomphlett, and Oreston	...	...	...	...	£2124
					<hr/>
					£5,120
					<hr/>

If it be decided to supply Hooe and Turnchapel from the Plympton supply, rather than undertake separate works in those villages, the total cost will be raised by another £957.

The annual cost of the above scheme, assuming that the money is borrowed at  $3\frac{1}{2}$  per cent., repayable in 30 years, will be—for supplying Plymstock, Elburton, Oreston, Pomphlett and Billacombe, £244 11s., and if Turnchapel and Hooe are included, £296 6s. 6d.

It cannot be denied that this sum is a very heavy one, but the necessity of obtaining a good supply of water is so great that there ought not to be further delay because of financial reasons.

**Yealmpton.**—The chief need here is a proper distribution of water. In November I laid a report before the Council in which I stated that “There appears to be plenty of water available, but its distribution is very bad, as a large number of houses in the eastern part of the village are a long distance from one of the three public taps. There is a good reservoir on high ground near the source of the water, and, there is so good a supply of water, that there has always been sufficient for the inhabitants during the last 30 or 40 years.”

The water question, in this village, is a rather complicated one, for, although there are public standpipes, and presumably a public right to the water, yet the source of the water and the reservoir are, I am informed, private property. It is a pity that such a condition of affairs should continue, for, if there is one thing, above all others, which should, within its district, be under the absolute control of a public body, it is Water; and, I therefore hope the District Council will be able to make such an arrangement with the present owner, as to amicably acquire the water and reservoir, and so be enabled to at once proceed with the much needed distribution.

**Roborough.**—In this village are many insanitary conditions which should be dealt with at once for they are dangerous to health. During the year Mr. Shier, the Sanitary Inspector, and myself suggested a scheme by which the sewage of the village would be carried on to some adjoining land and there disposed of by irrigation. This scheme was however so strongly objected to by the Landowner, Sir Massey Lopes, and the Parish Council of Bickleigh that a meeting between them and a Committee of the District Council was arranged and held in October. The result of this meeting was that the District Council was requested to endeavour to obtain from Mr. Radcliffe, permission to carry the sewage on to his land. I hope this permission will soon be obtained, or definitely refused, for whilst it remains an open question, no further steps can be taken, and the matter is not one which can with safety be longer delayed.

**Cornwood.**—During the year Lutton has received a very good supply of water, which, after being gathered from a number of springs on high ground, is collected in a well-constructed and protected reservoir, and thence freely distributed throughout the village in galvanized iron pipes. The work reflects great credit on the sanitary inspector, Mr. Horton, who designed the plans and superintended the work during construction.

Lutton schools have been provided with new closets, automatically flushed, and some new closets have been erected in the village.

The public supply of water for the village of Cornwood should be better distributed, but I fear that is impossible with the present service reservoir.

The main sewer from Cornwood school to the Cornwood Inn has an insufficient fall and should be re-laid at a better gradient.

**Egg Buckland.**—Early in the year an inspection of the village was again made, and my report shewed that the present system of drainage, into a number of cess-pits, is very far from satisfactory. I concluded my report by saying, “That the village is admirably situated, on the side of a hill, for efficient drainage, and, I am informed, that a sufficient supply of water for flushing purposes can be obtained at the top of village; and, as the present condition of things is one of danger to the health of the inhabitants, I strongly recommend that a drainage scheme be drawn up and carried out by the Council. The scheme I would suggest is the laying of pipes with proper house connections; the provision of efficient flushing apparatus; and the disposal of the sewage by irrigation, in the low-lying meadow land at the bottom of the valley.”

In consequence of this report the Council instructed Mr. Bellamy, C.E., to survey the village and prepare a scheme of drainage—the scheme he presented is substantially that sketched in my report. Unfortunately no definite arrangement has yet been made with the landlord, on whose ground it is proposed to irrigate the sewage, but I hope the matter will soon be settled, for it ought not to be longer delayed, seeing that the present system can hardly fail, as summer approaches, to reproduce or accentuate the nuisances due to overflowing cess-pits. So soon as a good drainage scheme is carried out, it will be easy to remedy the existing condition of many of the closets.

**Laira.**—The condition of Laira is very unsatisfactory both as regards drainage and water. This has been recognised for a long time past and several efforts have been made by the District Council to find a remedy. The district has been surveyed by eminent engineers and schemes prepared, but only to be objected to and rejected by the residents. Generally speaking, that part of Laira Green, referred to below, has been included, and properly included in the schemes prepared. The last scheme was one prepared by Mr. Bellamy, C.E., and was the subject of the last Local Government Enquiry. The inhabitants of Laira opposed the scheme, and in the end the Local Government Board stated "that the scheme, so far as it relates to the sewerage works in the hamlet, Laira, is satisfactory, subject to certain slight modifications being made," but that "by far the most satisfactory method of disposing of the sewage would be by connecting the sewers with those of the Town Council of Plymouth" by joining a sewer "which the Town Council propose to construct in Lipson Road." But whether this will come to pass or no, it is quite certain that it will be several years before Laira drainage can be taken by Plymouth, seeing that it has been expressly stated that five years must elapse before Mr. Mansergh's scheme would be sufficiently far advanced to take in Laira; and this provided all goes forward smoothly and unopposed—but there are good

grounds for thinking that Mr. Mansergh's scheme will have to be very considerably modified before it receives the necessary official sanction, for one can hardly imagine it possible that the Local Government Board will allow such a wealthy Corporation as the "Greater Plymouth" hopes to be, to send its crude sewage in one large, foul stream into the Sound, and indeed, I can hardly understand Plymouth's loudly expressed zeal for advanced sanitation, permitting such a scheme being put forward. But whatever be the ultimate result of Mr. Mansergh's scheme, and whether amalgamation comes or not, the Plympton St. Mary Rural District Council have decided that the existing state of things at Laira must be put an end to, and after consultation with Mr. Baldwin Lathom, C.E., it has been determined to drain Laira into Compton tanks, and so prevent the constantly recurring nuisances of overflowing cesspits. It is intended to proceed with this work forthwith, and had it not been for local opposition the preliminary work would have been well forward by this time. I cannot understand why any people in Laira object to this scheme, for if Plymouth succeeds in her amalgamation ideas, she will not only take Laira, but she will also take over the Compton Tanks, and during the time that must necessarily elapse during the construction of Mr. Mansergh's scheme she will be compelled to continue to use those tanks and not only so, but there are good grounds for believing that even if amalgamation is accomplished the then greater Plymouth will find reasons convincing enough to herself (although perhaps not to the then Laira-Plymouthians), as to induce her to find in the Compton tanks the best solution of the Laira drainage difficulty.

But as a considerable time must elapse before the question of amalgamation be settled, and a still longer time before Mr. Mansergh's scheme be constructed, I cannot too strongly advise the people of Laira to accept the scheme of drainage suggested by Mr. Baldwin Lathom, because I consider it the best possible under the circumstances and because there is no doubt, it will

absolutely put an end to many of the present insanitary conditions, and because I believe it will in the long run prove to be that which will ultimately be adopted and maintained, whether amalgamation becomes a fact or no.

The present water supply of Laira is from a number of shallow wells, yielding water of very variable quality, and it is unfortunate that Plymouth has the parliamentary right of providing a public supply. I say "unfortunate" for Plymouth has shewn her zeal for the sanitary needs of Laira, by refusing to supply water except on prohibitive terms, and has also threatened that she will use her power of preventing the Plympton St. Mary Rural District Council finding a suitable public supply elsewhere.

**Laira Green.**—The part of Laira Green that stands in need of attention is that comprising the avenue and its immediate neighbourhood. This is a low lying district at present draining into the mullet pond, and is dependent for water on a number of shallow wells. The water of some of the wells is unfit for domestic use. •

This district is included in the drainage scheme referred to under Laira.

**Weston Peverell or Pennycross.**—The drainage of this district is receiving the special attention of a committee appointed for that purpose. The matter is a most important one, and I hope soon to be able to state that arrangements have been completed with a neighbouring friendly authority by which the present unsatisfactory system of cess-pit drainage will be replaced by well laid sewers, for which a survey has been made and a scheme prepared by Mr. Masterton, C E. There is much building going on in this neighbourhood, and so soon as sewers are laid, I have no doubt houses will be erected very fast, for the district is within easy reach of Plymouth, Stonehouse and Devonport, and for many other reasons

is attractive to builders, so that if only looked at from a financial point, a complete sewerage system is advisable, seeing that it would so probably prove a good investment by so largely increasing the rateable value of the district.

The water supply is unsatisfactory, being taken from a series of shallow wells. This will, unfortunately, have to continue until the district is properly sewered, as I believe Plymouth has the right of supplying a large part of the district with water, and this she refuses to do until the proposed drainage scheme is carried out.

**Plympton St. Mary and St. Maurice.**—During the year an improvement has taken place in the scavenging and collecting of refuse. A contract has been entered into by which the contractor is bound to call at each house in Ridgway, Colebrook, Underwood, and Plympton St. Maurice, at least once a week, and remove all house refuse. The conditions of the contract are as follows :—

“ The term house refuse shall mean and include all ashes, dirt, cooking refuse, animal and vegetable refuse, fish offal, sweepings of yards, waste paper, rags, tin-pots, broken glass, earthenware, and other matter resulting from house-keeping, and which, by accumulation, may become a nuisance.

“ The contractor will be required to have a bell attached to the hames of his horses’ harness, so that householders may be apprised of his coming ; he must call at each house at least once in each week, and remove all refuse detailed above, and shall so far as possible, time his visits, so that each house shall be visited on the same day and hour in each successive week.

**NOTE.**—There are a number of houses, having gardens, the occupiers may possibly remove their own refuse, but on going his rounds the contractor must visit these and remove any refuse that may be there.

“The contractor must provide a place for the deposit of the said refuse (which refuse shall become his property) at such a distance from inhabited houses as shall not become a nuisance to the occupiers of such dwellings.

“The District Council reserve to themselves the right to limit the hours of removal of the said refuse during hot weather, so that no collection shall take place between the hours of 10-30 a.m. and 4 p.m., and they may at any time cause the contractor to use a tarpaulin or other suitable covering while conveying the refuse from the houses to the place of deposit.

“The contract to commence on the 29th September, 1895, and to be terminated after the expiration of the first year by three months notice, given either by the District Council or contractor.

“The contractor will be paid the amount of his contract quarterly in equal instalments.

“The contractor must be civil and obliging in the performance of his duty, which must be done to the satisfaction of the Sanitary Inspector.”

The public water supply is an exceedingly good one and well distributed. At the present time it is being supplied to 446 houses, 15 stables, and 10 laundries, and there is an average daily consumption of 43,700 gallons, and there is an ample reserve for all possible increased demands.

A few private wells, which I intend during the coming year to examine, are still being used.

**Hemerdon.**--The village possesses a good supply of water from the Plympton mains, but there are many houses without any closet accommodation whatever, and many with closets in dilapidated and bad condition. In every case the owners of the houses

have been requested to provide what is necessary, but by far the majority have ignored the Council's requests, and there is, therefore, now no alternative but to resort to legal compulsion.

**St. Budeaux.**—The district has been surveyed by Mr. Masterton and a scheme of drainage prepared and so soon as the necessary preliminaries are arranged with the Admiralty and the Board of Trade, the scheme will be sent to the Local Government Board. St. Budeaux, which is at present provided with a number of cess-pits, affords very striking examples of how almost impossible it is to prevent cess-pits, into which storm-water is admitted, from overflowing and so becoming dangerous to health.

The scheme of drainage proposed will drain that very rapidly developing neighbourhood near the station, but provision is also made for extension of sewers as occasion may arise. I cannot too strongly insist upon the necessity for making every possible effort to push forward the drainage scheme as the present cess-pits are the cause of constantly recurring and dangerous nuisances, and these nuisances will undoubtedly grow in frequency and extent in proportion to the number of new houses erected.

I need only refer to the nuisances which have occurred during the year at Yeoman's Terrace and Morris Park. Steps have been taken in both cases to mitigate the evils as much as possible, but the only effectual remedy is the drainage scheme.

Several complaints have been made by the inhabitants of Honicknowle about the bad smells caused by an offensive trade carried on near the village. I have no doubt that the smells arising from such a business as that of horse slaughtering, bone boiling, etc., are at times exceedingly offensive, but in this case they have been needlessly increased by inattention to preventive measures in working. The proprietor has been requested

to make such alterations, as will, I think, much mitigate the nuisance complained of, but the business will probably always be an "offensive" one.

**Crown Hill.**—This is partly in St. Budeaux, and partly in Egg Buckland, and is a rapidly developing village. It will probably increase still more in the near future, and I am sorry that another year has passed without any advance being made in the necessary drainage of the district. The delay is solely due to a difficulty in concluding the necessary arrangements with the Landowner and Tenant through whose land the sewer is to be carried, and it is most unfortunate that this matter is still so far from settlement. The Local Government Board sanctioned the borrowing of money for the scheme two years ago, and if the present cause of delay cannot be removed, it will be wise to at once recognize the fact and either get another scheme prepared, or the present one so modified as to enable it to be proceeded with.

**Tamerton Folliott.**—As the result of an inspection of this village, several improvements have been made in the closet accommodation. The Council is about to undertake the piping of a small stream which enters the sewer, and so soon as this is completed some cess-pit closets will be replaced by water closets.

The public water is taken from two shallow wells which are imperfectly protected, and which are both close to and under the level of highly-cultivated gardens. In my opinion both wells yield water of suspicious quality. An effort is being made (by the special request of the Parish Council) to protect the wells, and I await the result with some interest.

Pigs houses are in some cases very unpleasantly near dwelling houses, but it is very doubtful if a "legal" nuisance could be proved.

**Overcrowding.**—I have carefully investigated the cases which have been brought to my notice during the year, but they have not been such as necessitated, or would afford sufficient ground for any legal action. It cannot be denied that in several of the villages there are many houses or tenements in which more people live than one thinks proper or advisable, but in the face of the impossibility of finding other houses, it would be a cruel hardship to evict a family except under the sternest necessity, and I have therefore had to be content to insist upon cleanliness and free ventilation.

**Removal of Refuse.**—The contract issued for removal of refuse in Plympton is an admirable one, and I think a similar contract should be arranged for some of the other Sub-Urban Districts. In some of the villages large sanitary bins are provided by the Council, but the inhabitants are careless in using them, and often prefer to throw offensive refuse on the nearest convenient spot rather than take the trouble of going to the bin.

New houses inspected and water certificates granted :

In the North District 143      In the South District 4

Rooms disinfected 25.

P.S. **Laira.**—Since I wrote my remarks *re* Laira, I am glad to say that much progress has been made in the temporary drainage scheme. The pipe sewer to take the sewage into the Compton main sewer has been laid, and very soon the cess-pit nuisance will be a thing of the past. This pipe sewer, although a temporary remedy, is yet so planned as to be (after the necessary legal arrangements are completed,) a part of the permanent scheme.

**Roborough.**—Just recently a letter has been received from Mr. Radcliffe saying he cannot allow his land to be used for the irrigation of sewage from Roborough. The District Council have therefore decided to take steps to compel the individual owners of property in Roborough to abate the nuisances existing on their properties.

